ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT GROUP FILING DATE 2634 August 4, 2000 **U.S. PATENT DOCUMENTS EXAMINER** DOCUMENT DATE NAME CLASS SUB-**FILING DATE** MILIPALE NUMBER CLASS AA1 2,057,613 10/1936 250 8 Gardner AB1 2.241.078 05/1941 Vreeland 179 15 AC1 179 2,270,385 01/1942 Skillman 15 AD1 2,283,575 05/1942 Roberts 250 6 AE1 2,358,152 09/1944 Earp 179 171.5 AF1 2,410,350 10/1946 Labin et al. 179 15 AG1 2,451,430 10/1948 Barone 250 8 AH1 2,462,069 02/1949 Chatterjea et al. 250 17 Al1 2,462,181 02/1949 Grosselfinger 250 17 FÓREIGN PATENT DOCUMENTS **EXAMINER** INITIAL **DOCUMENT NUMBER** COUNTRY DATE CLASS SUB-TRANSLATION **CLASS** AJ1 DE 42 37 692 C1 03/1994 DE H04B 1/26 No AK1 EP 0 035 166 A1 09/1981 EP H04B 1/26 No AL1 EP 0 193 899 B1 06/1990 ΕP G01S 7/52 N/A AM₁ EP 0 380 351 A2 08/1990 ΕP **H03H** 17/04 N/A OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Aghvami, H. et al., "Land Mobile Satellites Using the Highly Elliptic Orbits- The UK T-SAT Mobile Payload," AN Fourth International Conference on Satellite Systems for Mobile Communications and Navigation, IEE, pp. 147-1 153 (October 17-19, 1988). Akers, N.P. et al., "RF Sampling Gates: a Brief Review," IEE Proceedings, IEE, Vol. 133, Part A, No. 1, pp. 45-AO 1 49 (January 1986). آبار Al-Ahmad, H.A.M. et al., "Doppler Frequency Correction for a Non-Geostationary Communications Satellite. Techniques for CERS and T-SAT," Electronics Division Colloquium on Low Noise Oscillators and Synthesizers, ΑP 1 IEE, pp. 4/1-4/5 (January 23, 1986). Ali, I. et al., "Doppler Characterization for LEO Satellites," IEEE Transactions on Communications, IEEE, Vol. AQ 1 46, No. 3, pp. 309-313 (March 1998). Allan, D.W., "Statistics of Atomic Frequency Standards," Proceedings Of The IEEE Special Issue on Frequency AR 1 Stability, IEEE, pp. 221-230 (February 1966). DATE CONSIDERED **EXAMINER** EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in

conformance and not considered. Include copy of this form with next communication to Applicant. ::ODMANHODMA\BKGF_DC1;32486;1

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	AB2	2,49	7,859	02/1950		Bouç	htwood et al.	250)	8				
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	AO	2	Ailstot, D.J. a Filtering Syste	Allstot, D.J. and Black Jr. W.C., "Technological Design Considerations for Monolithic MOS Switched-Capacitor Filtering Systems," <i>Proceedings of the IEEE</i> , IEEE, Vol. 71, No. 8, pp. 967-986 (August 1983).										
	AP ;	<u>2</u>	Alouini, M. et Proceedings	Alouini, M. et al., "Channel Characterization and Modeling for Ka-Band Very Small Aperture Terminals," Proceedings Of the IEEE, IEEE, Vol. 85, No. 6, pp. 981-997 (June 1997).										
	AQ ;	2	Propagation in	Andreyev, G.A. and Ogarev, S.A., "Phase Distortions of Keyed Millimeter-Wave Signals in the Case of Propagation in a Turbulent Atmosphere," <i>Telecommunications and Radio Engineering</i> , Scripta Technica, Vol. 43, No. 12, pp. 87-90 (December 1988).										
(C)	AR :	2					mpling in the Picosecond p. 211-214 (May 1977).	∤ Range," O	ptics Co	əmmunicatior	15, North-Holland			
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APPLICATION NO. ATTY. DOCKET NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT GROUP FILING DATE August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER FILING DATE** CLASS SUB-DATE DOCUMENT NAME INITIAL CLASS NUMBER 332 22 01/1964 10 AA3 King et al. 3,118,117 40 12/1965 McNair 325 AB3 3,226,643 **Shepherd** 325 145 AC3 06/1966 3,258,694 325 163 05/1968 Sanders AD3 3,383,598 AE3 05/1968 Miyagi 325 30 3,384,822 178 66 07/1969 Perreault AF3 3,454,718 347 AG3 08/1970 Pierret 340 3,523,291 332 9 12/1970 Maxey AH3 3,548,342 325 320 01/1971 Perreault AI3 3,555,428 **FOREIGN PATENT DOCUMENTS EXAMINER CLASS** SUB-TRANSLATION DOCUMENT NUMBER COUNTRY INITIAL DATE CLASS 7/01 N/A HQ4N AJ3 EP 0 423 718 A2 04/1991 EP 7/01 N/A H04N 08/1992 EP AK3 EP 0 423 718 A3 H03D 3/00 N/A EP 0 486 095 A1 05/1992 AL3 N/A **H03D** 3/00 AM3 EP 0 486 095 B1 02/1997 EP OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Austin, J. et al., "Doppler Correction of the Telecommunication Payload Oscillators in the UK T-SAT," 18th European Microwave Conference, Microwave Exhibitions and Publishers Ltd., pp. 851-857 (September 12 - 15, AN 3 1988). Auston, D.H., "Picosecond optoelectronic switching and gating in silicon," Applied Physics Letters, American AO <u>3</u> Institute of Physics, Vol. 26, No. 3, pp. 101-103 (February 1, 1975). Baher, H., "Transfer Functions for Switched-Capacitor and Wave Digital Filters," IEEE Transactions on Circuits AP 3 and Systems, IEEE Circuits and Systems Society, Vol. CAS-33, No. 11, pp. 1138-1142 (November 1986). Baines, R., "The DSP Bottleneck," IEEE Communications Magazine, IEEE Communications Society, pp. 46-54 QA <u>3</u> (May 1995). Banjo, O.P. and Vilar, E., "Binary Error Probabilities on Earth-Space Links Subject to Scintillation Fading," *Electronics Letters*, IEE, Vol. 21, No. 7, pp. 296-297 (March 28, 1985). AR <u>3</u> DATE CONSIDERED **EXAMINER** EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

Page 4 of 56 ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL DOCUMENT DATE NAME **CLASS** SUB-**FILING DATE** NUMBER CLASS AA4 3,617,892 11/1971 Hawley et al. 325 145 AB4 3,621,402 11/1971 Gardner 328 37 AC4 3,623,160 11/1971 Giles et al. 340 347 DA AD4 3,626,417 12/1971 Gilbert 343 203 AE4 3,629,696 12/1971 324 **Bartelink** 57 R AF4 3,662,268 05/1972 Gans et al. 325 56 AG4 3,689,841 09/1972 Bello et al. 325 39 AH4 3,714,577 01/1973 Haves 325 145 Al4 3,717,844 02/1973 Barret et al. 340 5 R **FOREIGN PATENT DOCUMENTS** EXAMINER INITIAL **DOCUMENT NUMBER** DATE COUNTRY **CLASS** SUB-TRANSLATION **CLASS** AJ4 EP 0 512 748 A2 11/1992 EP H04N 9/64 N/A AK4 EP 0 512 748 A3 07/1993 EP H04N 9/64 N/A A1 4 EP 0 512 748 B1 11/1998 EP H04N 9/64 N/A AM4 EP 0 548 542 A1 06/1993 EΡ **H03B** 19/14 N/A OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Banjo, O.P. and Vilar, E., "The Dependence of Slant Path Amplitude Scintillations on Various Meteorological AN Parameters," Fifth International Conference on Antennas and Propagation (ICAP 87) Part 2: Propagation, IEE, 4 pp. 277-280 (March 30 - April 2, 1987). Banjo, O.P. and Vilar, E. "Measurement and Modeling of Amplitude Scintillations on Low-Elevation Earth-Space Paths and Impact on Communication Systems," *IEEE Transactions on Communications*, IEEE Communications Society, Vol. COM-34, No. 8, pp. 774-780 (August 1986). AO 4 Banjo, O.P. et al., "Tropospheric Amplitude Spectra Due to Absorption and Scattering in Earth-Space Paths," AP 4 Fourth International Conference on Antennas and Propagation (ICAP 85), IEE, pp. 77-82 (April 16-19, 1985). Basili, P. et al., "Case Study of Intense Scintillation Events on the OTS Path." IEEE Transactions on Antennas AQ 4 and Propagation, IEEE, Vol. 38, No. 1, pp. 107-113 (January 1990).

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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

Letters, IEE, Vol. 24, No. 17, pp. 1114-1116 (August 18, 1988).

Basili, P. et al., "Observation of High C² and Turbulent Path Length on OTS Space-Earth Link," Electronics

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ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL **DOCUMENT** DATE NAME FILING DATE CLASS SUB-NUMBER **CLASS** AA5 3,735,048 05/1973 Tomsa et al. 15 BM 179 AB5 3,806,811 04/1974 Thompson 325 146 AC5 3,868,601 02/1975 MacAfee 332 45 AD5 3,949,300 04/1976 Sadler 325 31 AE5 3,967,202 06/1976 Batz 325 31 AF5 3,980,945 09/1976 **Bickford** 325 30 AG5 3,987,280 10/1976 Bauer 235 150.53 AH5 3,991,277 11/1976 Hirata 179 15 FD AI5 4,003,002 01/1977 Snijders et al. 332 10 **FOREIGN PATENT DOCUMENTS** EXAMINER INITIAL DOCUMENT NUMBER DATE COUNTRY **CLASS** SUB-TRANSLATION **CLASS** AJ5 EP 0 632 288 A2 01/1995 ΕP **G01S** 13/75 N/A AK5 EP 0 632 288 A3 07/1996 FP G01S 13/75 N/A AL5 EP 0 696 854 A1 02/1996 EΡ H04B 1/26 N/A AM5 EP 0 782 275 A2 07/1997 EΡ 7/02 N/A OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Blakey, J.R. et al., "Measurement of Atmospheric Millimetre-Wave Phase Scintillations in an Absorption AN <u>5</u> Region," Electronics Letters, IEE, Vol. 21, No. 11, pp. 486-487 (May 23, 1985). Burgueño, A. et al., "Influence of rain gauge integration time on the rain rate statistics used in microwave AO <u>5</u> communications," annales des télécommunications, International Union of Radio Science, pp. 522-527 (September/October 1988). Burgueño, A. et al., "Long-Term Joint Statistical Analysis of Duration and Intensity of Rainfall Rate with Application to Microwave Communications," Fifth International Conference on Antennas and Propagation (ICAP 87) Part 2: Propagation, IEE, pp. 198-201 (March 30 - April 2, 1987). AP <u>5</u> Burgueño, A. et al., "Long Term Statistics of Precipitation Rate Return Periods in the Context of Microwave Communications," Sixth International Conference on Antennas and Propagation (ICAP 89) Part 2: Propagation, AQ <u>5</u> IEE, pp. 297-301 (April 4-7, 1989). Burgueño, A. et al., "Spectral Analysis of 49 Years of Rainfall Rate and Relation to Fade Dynamics," IEEE AR <u>5</u> Transactions on Communications, IEEE Communications Society, Vol. 38, No. 9, pp. 1359-1366 (September **EXAMINER**

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER DOCUMENT** INITIAL DATE FILING DATE NAME CLASS SUB-NUMBER **CLASS** AA6 4,013,966 03/1977 363 325 Campbell AB6 4,019,140 04/1977 322 Swerdlow 65 AC6 4,035,732 07/1977 Lohrmann 325 446 AD6 4,047,121 09/1977 Campbell 331 76 AE6 4,066,841 01/1978 Young 178 66 R AF6 4,066,919 01/1978 Huntington 307 353 AG6 Batz 4,081,748 03/1978 325 56 AH₆ 4,130,765 12/1978 Arakelian et al. 307 220 R Van Gerwen et al. AI6 4,130,806 12/1978 325 487 **FOREIGN PATENT DOCUMENTS** EXAMINER INITIAL **DOCUMENT NUMBER** DATE COUNTRY **CLASS** SUB-TRANSLATION CLASS AJ6 EP 0 785 635 A1 07/1997 EP H04B 1/713 No AK6 EP 0 795 978 A2 09/1997 EP H04L 5/06 N/A AL6 EP 0 837 565 A1 04/1998 EP H04B 1/69 N/A AM6 EP 0 862 274 A1 09/1998 EP нозм 1/06 N/A OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Catalan, C. and Vilar, E., "Approach for satellite slant path remote sensing," Electronics Letters, IEE, Vol. 34, AN <u>6</u> No. 12, pp. 1238-1240 (June 11, 1998). Chan, P. et al., "A Highly Linear 1-GHz CMOS Downconversion Mixer," *European Solid State Circuits Conference*, IEEE Communication Society, pp. 210-213 (September 22-24, 1993). ΑO <u>6</u> Copy of Declaration of Michael J. Bultman filed in patent application Ser. No. 09/176,022, which is directed to AP <u>6</u> related subject matter, 2 pages. Copy of Declaration of Robert W. Cook filed in patent application Ser. No. 09/176,022, which is directed to AQ <u>6</u> related subject matter, 2 pages. Copy of Declaration of Alex Holtz filed in patent application Ser. No. 09/176,022, which is directed to related AR <u>6</u> subject matter, 3 pages. **EXAMINER** DATE CONSIDERED 11 **EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE **GROUP** August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL **DOCUMENT** DATE NAME **CLASS** SUR **FILING DATE** NUMBER **CLASS** AA7 4,142,155 02/1979 Adachi 47 325 AB7 4,170,764 10/1979 Salz et al. 332 17 AC7 4,204,171 05/1980 Sutphin, Jr. 328 167 AD7 4.210.872 07/1980 Gregorian 330 9 AE7 4,245,355 01/1981 Pascoe et al. 455 326 AF7 4,253,066 02/1981 Fisher et al. 329 50 AG7 4,253,069 02/1981 Nossek 330 107 AH7 4,308,614 12/1981 Fisher et al. 370 119 AI7 4.320.361 03/1982 **Kikkert** 332 16 R **FOREIGN PATENT DOCUMENTS EXAMINER** INITIAL **DOCUMENT NUMBER** DATE COUNTRY CLASS SUB-TRANSLATION CLASS AJ7 EP 0 874 499 A2 10/1998 EP H04L 25/06 N/A AK7 FR 2 743 231 A1 07/1997 FR H04B 7/12 No AL7 GB 2 161 344 A 01/1986 GB H04B 7/12 N/A AM7 GB 2 215 945 A 09/1989 GB H04L 27/00 N/A OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Copy of Declaration of Richard C. Looke filed in patent application Ser. No. 09/176,022, which is directed to AN <u>Z</u> related subject matter, 2 pages. Copy of Declaration of Charley D. Moses, Jr. filed in patent application Ser. No. 09/176,022, which is directed to AO <u>7</u> related subject matter, 2 pages. Copy of Declaration of Jeffrey L. Parker and David F. Sorrells, with attachment Exhibit 1, filed in patent AP 7 application Ser. No. 09/176,022, which is directed to related subject matter, 130 pages. Dewey, R.J. and Collier, C.J., "Multi-Mode Radio Receiver," Electronics Division Colloquium on Digitally AQ 7 Implemented Radios, IEE, pp. 3/1-3/5 (October 18, 1985). DIALOG File 347 (JAPIO) English Language Patent Abstract for JP 2-276351, 1 page (November 13, 1990 -AR <u>7</u> Date of publication of application). **EXAMINER** DATE CONSIDERED **EXAMINER**: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP

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·	1	AB8	4,3	46,477	08/1	982	Gordy		455	257			
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				2-276351 D 80/01633 A1		11/1990		JP	H04L	27/22	No		
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		AO	<u>8</u>	DIALOG File 347 (JAPIO) English Language Patent Abstract for JP 2-39632, 1 page (February 8, 1990 - publication of application).									
AP B DIALOG File 348 (European Patents) English Language Patent Abstract for EP 0 785 635 A1, (December 26, 1996 - Date of publication of application).										3 pages			
		AQ	<u>8</u>	DIALOG File 348 (European Patents) English Language Patent Abstract for EP 35166 A1, 2 pages (Februar 18, 1981 - Date of publication of application).									
4	K	AR	<u>8</u>	"DSO takes sa 77 and 79 (Ma	amplin	g rate to 1 G 987).	ihz," <i>E</i>	ilectronic Engineering, M	organ Grampian F	Publishers, Vo	ol. 59, No. 723, pp.		
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ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL DOCUMENT DATE CLASS SUB-FILING DATE NAME NUMBER CLASS 16 AA9 4,392,255 07/1983 **Del Giudice** 455 328 AB9 4,430,629 02/1984 Betzl et al. 333 165 AC9 4,446,438 05/1984 Chang et al. 328 127 AD9 4,456,990 06/1984 Fisher et al. 370 119 AE9 4,472,785 09/1984 Kasuga 364 718 AF9 4,479,226 10/1984 Prabhu et al. 375 AG9 4,481,490 11/1984 Huntley 332 41 AH9 4,481,642 11/1984 375 9 Hanson AI9 4,485,488 11/1984 Houdart 455 327 FOREIGN PATENT DOCUMENTS EXAMINER INITIAL **DOCUMENT NUMBER** DATE COUNTRY **CLASS** SUB-**TRANSLATION** CLASS WO 94/05087 A1 **A.J9** 03/1994 PCT 1/00 **H03M** N/A AK9 WO 96/02977 A1 02/1996 **PCT** H04B 1/26 N/A AL9 WO 96/08078 A1 03/1996 **PCT** H03D 3/00 N/A AM9 WO 96/39750 A1 12/1996 PCT H04B 1/26 N/A OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Erdi, G. and Henneuse, P.R., "A Precision FET-Less Sample-and-Hold with High Charge-to-Droop Current Ratio," *IEEE Journal of Solid-State Circuits*, IEEE, Vol. SC-13, No. 6, pp. 864-873 (December 1978). AN 9 Faulkner, N.D. and Vilar, E., "Subharmonic Sampling for the Measurement of Short Term Stability of Microwave Oscillators," *IEEE Transactions on Instrumentation and Measurement*, IEEE, Vol. IM-32, No. 1, pp. 208-213 AO 9 (March 1983). Faulkner, N.D. et al., "Sub-Harmonic Sampling for the Accurate Measurement of Frequency Stability of AP 9 Microwave Oscillators," CPEM 82 Digest: Conference on Precision Electromagnetic Measurements, IEEE, pp. M-10 and M-11 (1982). Faulkner, N.D. and Vilar, E., "Time Domain Analysis of Frequency Stability Using Non-Zero Dead-Time Counter AQ 9 Techniques," CPEM 84 Digest Conference on Precision Electromagnetic Measurements, IEEE, pp. 81-82 (1984).Filip, M. and Vilar, E., "Optimum Utilization of the Channel Capacity of a Satellite Link in the Presence of Amplitude Scintillations and Rain Attenuation," *IEEE Transactions on Communications*, IEEE Communications AR 9 Society, Vol. 38, No. 11, pp. 1958-1965 (November 1990). **EXAMINER DATE CONSIDERED** 11 1. **EXAMINER**: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL DOCUMENT DATE CLASS FILING DATE NAME SUB-NUMBER **CLASS AA10** 4,504,803 03/1985 Lee et al. 332 31 R 05/1985 **AB10** 4,517,519 Mukaiyama 329 126 AC10 4,517,520 05/1985 Ogawa 329 145 AD10 4.518.935 05/1985 van Roermund 173 333 AE10 4,521,892 06/1985 Vance et al. 375 88 AF10 4,563,773 07/1986 Dixon, Jr. et al. 455 327 **AG10** 4,577,157 03/1986 Reed 329 50 AH₁₀ 4,583,239 04/1986 Vance 375 94 AI10 4,591,736 05/1986 Hirao et al. 307 267 FOREIGN PATENT DOCUMENTS EXAMINER INITIAL **DOCUMENT NUMBER** DATE CLASS SUB-COUNTRY TRANSLATION CLASS AJ10 WO 97/38490 A1 10/1997 PCT 7/00 **H03K** AK10 WO 98/00953 A1 01/1998 PCT H04L 27/26 N/A AL10 WO 98/24201 A1 06/1998 PCT **H04H** 1/00 N/A **AM10** EP 0 099 265 A1 01/1984 EP H03D 3/04 N/A OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Fukahori, K., "A CMOS Narrow-Band Signaling Filter with Q Reduction," IEEE Journal of Solid-State Circuits, AN <u>10</u> IEEE, Vol. SC-19, No. 6, pp. 926-932 (December 1984). Fukuchi, H. and Otsu, Y., "Available time statistics of rain attenuation on earth-space path," IEE Proceedings-H: AO <u>10</u> Microwaves, Antennas and Propagation, IEE, Vol. 135, Pt. H, No. 6, pp. 387-390 (December 1988). Gibbins, C.J. and Chadha, R., "Millimetre-wave propagation through hydrocarbon flame," *IEE Proceedings*, IEE, Vol. 134, Pt. H, No.2, pp. 169-173 (April 1987). AP 10 Gilchrist, B. et al., "Sampling hikes performance of frequency synthesizers," *Microwaves & RF*, Hayden Publishing, Vol. 23, No. 1, pp. 93-94 and 110 (January 1984). AQ 10 Gossard, E.E., "Clear weather meteorological effects on propagation at frequencies above 1 Ghz," Radio AR <u>10</u> Science, American Geophysical Union, Vol. 16, No. 5, pp. 589-608 (September - October 1981). **EXAMINER** DATE CONSIDERED 1 EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

::OCMAWHODMA\SKGF_DC1;32466;1

ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL **DOCUMENT** DATE NAME CLASS SUB-FILING DATE **NUMBER** CLASS **AA11** 4.602.220 07/1986 Kurihara 331 19 **AB11** 4,603,300 Welles, II et al. 07/1986 329 50 **AC11** 4,612,464 09/1986 Ishikawa et al. 307 496 AD11 4,612,518 09/1986 Ġans et al. 332 21 AE11 4,616,191 10/1986 Galani et al. 331 4 AF11 4,621,217 11/1986 Saxe et al. 315 Schwarz et al. AG11 4,628,517 12/1986 375 40 **AH11** 4,634,998 01/1987 Crawford 331 1 A **AI11** 4,648,021 03/1987 Alberkrack 363 157 **FOREIGN PATENT DOCUMENTS** EXAM/NER INITIA DOCUMENT NUMBER DATE COUNTRY CLASS SUB-TRANSLATION CLASS AJ11 EP 0 560 228 A1 09/1993 FP H₀3D 7/12 N/A **AK11** FR 2 245 130 04/1975 FR **H03K** 5/13 Yes (See AP50) AL11 DE 35 41 031 A1 05/1986 DE H₀3D 3/00 Yes (See AR50) AM11 EP 0 732 803 A1 09/1996 EΡ H03D 3/00 Yes (See AN51) OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Gregorian, R. et al., "Switched-Capacitor Circuit Design," Proceedings of the IEEE, IEEE, Vol. 71, No. 8, pp. AN <u>11</u> 941-966 (August 1983). Groshong et al., "Undersampling Techniques Simplify Digital Radio," Electronic Design, Penton Publishing, pp. AO 11 67-68, 70, 73-75 and 78 (May 23, 1991). Grove, W.M., "Sampling for Oscilloscopes and Other RF Systems: Dc through X-Band," IEEE Transactions on AP <u>11</u> Microwave Theory and Techniques, IEEE, pp. 629-635 (December 1966). Haddon, J. et al., "Measurement of Microwave Scintillations on a Satellite Down-Link at X-Band," Antennas and Propagation, IEE, pp. 113-117 (1981). AQ 11 Haddon, J. and Vilar, E., "Scattering Induced Microwave Scintillations from Clear Air and Rain on Earth Space AR Paths and the Influence of Antenna Aperture," IEEE Transactions on Antennas and Propagation, IEEE, Vol. AP-11 34, No. 5, pp. 646-657 (May 1986). **EXAMINER** DATE CONSIDERED 11 **EXAMINER**: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

::ODMAW040DMA\SKGF_DC1;32486;1

ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE **GROUP** August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL DOCUMENT DATE NAME **CLASS** SUB-FILING DATE **NUMBER CLASS** 1 **AA12** 4,651,034 03/1987 Sato 307 556 **AB12** 4,675,882 Lillie et al. 06/1987 375 80 AC12 4,688,253 7 08/1987 381 Gumm AD12 4,716,376 12/1987 Daudelin 107 329 **AE12** 4,716,388 12/1987 Jacobs 333 173 AF12 4,718,113 01/1988 Rother et al. 455 209 **AG12** 4,726,041 02/1988 Prohaska et al. 375 91 **AH12** 4,733,403 03/1988 Simone 375 103 A112 4,734,591 03/1988 307 Ichitsubo 219.1 **FOREIGN PATENT DOCUMENTS** EXAMINER INITIAL DOCUMENT NUMBER DATE COUNTRY CLASS SUB-TRANSLATION **CLASS** AJ12 DE 197 35 798 C1 07/1998 DE HO4L 27/00 Yes (See AP51) AK12 WO 98/40968 A2&A3 09/1998 PCT H03L 7/08 N/A AL12 EP 0 529 836 A1 03/1993 EP H₀3L 7/089 N/A AM12 EP 0 795 955 A2&A3 09/1997 FΡ H03D 13/00 N/A OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Hafdallah, H. et al., "2-4 Ghz MESFET Sampler," Electronics Letters, IEE, Vol. 24, No. 3, pp. 151-153 (February AN 12 4, 1988). Herben, M.H.A.J., "Amplitude and Phase Scintillation Measurements on 8-2 km Line-Of-Sight Path at 30 Ghz," *Electronics Letters*, IEE, Vol. 18, No. 7, pp. 287-289 (April 1, 1982). AO 12 Hewitt, A. et al., "An 18 Ghz Wideband LOS Multipath Experiment," International Conference on Measurements AP 12 for Telecommunication Transmission Systems - MTTS 85, IEE, pp. 112-116 (November 27-28, 1985) Hewitt, A. et al., "An Autoregressive Approach to the Identification of Multipath Ray Parameters from Field Measurements," *IEEE Transactions on Communications*, IEEE Communications Society, Vol. 37, No. 11, pp. AQ 12 1136-1143 (November 1989). Hewitt, A. and Vilar, E., "Selective fading on LOS Microwave Links: Classical and Spread-Spectrum AR <u>12</u> Measurement Techniques," IEEE Transactions on Communications, IEEE Communications Society, Vol. 36, No. 7, pp. 789-796 (July 1988). **EXAMINER** DATE CONSIDERED 11 11 EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** DOCUMENT CLASS FILING DATE DATE SUB-INITIAL NAME NUMBER CLASS 67 **AA13** 4,737,969 04/1988 Steel et al. 375 **AB13** 05/1988 330 10 4,743,858 Everard AC13 358 23 4,745,463 05/1988 Lu 4,751,468 AD13 06/1988 328 133 Agoston AE13 4,757,538 07/1988 Zink 381 7 AF13 4,768,187 08/1988 Marshall 370 69.1 **AG13** 4,769,612 09/1988 Tamakoshi et al. 328 167 **AH13** 1 4,785,463 11/1988 Janc et al. 375 Al13 12/1988 364 525 4,791,584 Greivenkamp, Jr. **FOREIGN PATENT DOCUMENTS** EXAMINER INITIAL DOCUMENT NUMBER **CLASS** SUB-TRANSLATION DATE COUNTRY CLASS AJ13 7/00 N/A EP 0 817 369 A2&A3 01/1998 EP H₀3D 7/18 N/A **AK13** WO 91/18445 A1 11/1991 PCT H₀3D AL13 WO 99/23755 A1 05/1999 **PCT** H03D 7/16 N/A **AM13** H04B 7/02 JP 56-114451 09/1981 JP No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Hospitalier, E., "Instruments for Recording and Observing Rapidly Varying Phenomena," Science Abstracts, IEE, AN <u>13</u> Vol. VII, pp. 22-23 (1904). Howard, I.M. and Swansson, N.S., "Demodulating High Frequency Resonance Signals for Bearing Fault AO <u>13</u> Detection," The Institution of Engineers Australia Vibration and Noise Conference, Institution of Engineers, Australia, pp. 115-121 (September 18-20, 1990). Hu, X., A Switched-Current Sample-and-Hold Amplifier for FM Demodulation, Thesis for Master of Applied ΑP <u>13</u> Science, Dept. of Electrical and Computer Engineering, University of Toronto, UMI Dissertation Services, pp. 1-64 (1995). Hung, H-L. A. et al., "Characterization of Microwave Integrated Circuits Using An Optical Phase-Locking and Sampling System," IEEE MTT-S Digest, IEEE, pp. 507-510 (1991). AQ <u>13</u> Hurst, P.J., "Shifting the Frequency Response of Switched-Capacitor Filters by Nonuniform Sampling," IEEE AR Transactions on Circuits and Systems, IEEE Circuits and Systems Society, Vol. 38, No. 1, pp. 12-19 (January 13 1991). **EXAMINER DATE CONSIDERED** EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 U.S. PATENT DOCUMENTS **EXAMINER** INITIAL **FILING DATE** DOCUMENT DATE NAME CLASS SUB-NUMBER **CLASS AA14** 4,801,823 307 353 01/1989 Yokoyama 02/1989 AB14 4,806,790 Sone 307 353 AC14 4,810,904 03/1989 Crawford 307 353 4,810,976 03/1989 Cowley et al. 331 117 R AD14 AE14 4,811,362 03/1989 Yester, Jr. et al. 375 75 Christopher 375 AF14 04/1989 122 4,819,252 AG14 4,833,445 05/1989 Buchele 341 118 **AH14** 4,862,121 08/1989 Hochschild et al. 333 173 Al14 4,868,654 09/1989 Juri et al. 358 133 **FOREIGN PATENT DOCUMENTS EXAMINER** INITIA DOCUMENT NUMBER DATE COUNTRY **CLASS** SUB-TRANSLATION **CLASS** AJ14 JP 8-32556 02/1996 JP 1/04 H04L No **AK14** 7/00 JP 8-139524 05/1996 JP H₀3D No AL14 JP 59-144249 08/1984 JP H04L 27/00 No **AM14** JP 63-54002 03/1988 JP. H03B 19/114 No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Itakura, T., "Effects of the sampling pulse width on the frequency characteristics of a sample-and-hold circuit," AN 14 IEE Proceedings Circuits, Devices and Systems, IEE, Vol. 141, No. 4, pp. 328-336 (August 1994). Janssen, J.M.L., "An Experimental 'Stroboscopic' Oscilloscope for Frequencies up to about 50 Mc/s: I. Fundamentals," *Philips Technical Review, Philips Research Laboratories, Vol. 12, No. 2, pp. 52-59 (August* AO <u>14</u> Janssen, J.M.L. and Michels, A.J., "An Experimental 'Stroboscopic' Oscilloscope for Frequencies up to about 50 AP Mc/s: II. Electrical Build-Up, " Philips Technical Review, Philips Research Laboratories, Vol. 12, No. 3, pp. 73-82 <u>14</u> (September 1950). Jondral, V.F. et al., "Doppler Profiles for Communication Satellites," Frequenz, Herausberger, pp. 111-116 (May-AQ 14 June 1996). Kaleh, G.K., "A Frequency Diversity Spread Spectrum System for Communication in the Presence of In-band Interference," 1995 IEEE Globecom, IEEE Communications Society, pp. 66-70 (1995). AR 14 **EXAMINER** DATE CONSIDERED 11 EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL **DOCUMENT** DATE NAME **CLASS** FILING DATE SUB-NUMBER **CLASS AA15** 4,870,659 09/1989 Oishi et al. 375 82 **AB15** 4,871,987 10/1989 Kawase 332 100 AC15 4,885,587 12/1989 Wiegand et al. 42 14 AD15 4.885,756 12/1989 Fontanes et al. 375 82 **AE15** 4,888,557 12/1989 Puckette, IV et al. 329 341 AF15 4,890,302 12/1989 Muilwijk 375 80 **AG15** 4,893,316 01/1990 Janc et al. 375 44 **AH15** 4,893,341 01/1990 Gehring 381 AI15 4,894,766 01/1990 363 De Agro 159 **FOREIGN PATENT DOCUMENTS** EXAMINER INITIAL **DOCUMENT NUMBER** DATE COUNTRY CLASS SUB-TRANSLATION CLASS AJ15 JP 6-237276 08/1994 JP H04L 27/20 No **AK15** JP 8-23359 01/1996 JP HÓ4L 27/20 No AL15 JP 47-2314 02/1972 JP Yes (Doc. AP53) **AM15** JP 58-7903 01/1983 JP. 1/02 H₀3C Partial (Doc. AQ53) OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Karasawa, Y. et al., "A New Prediction Method for Tropospheric Scintillation on Earth-Space Paths," IEEE AN Transactions on Antennas and Propagation, IEEE Antennas and Propagation Society, Vol. 36, No. 11, pp. 1608-<u>15</u> 1614 (November 1988). Kirsten, J. and Fleming, J., "Undersampling reduces data-acquisition costs for select applications," EDN, AO <u>15</u> Cahners Publishing, Vol. 35, No. 13, pp. 217-222, 224, 226-228 (June 21, 1990). Lam, W.K. et al., "Measurement of the Phase Noise Characteristics of an Unlocked Communications Channel AP Identifier," Proceedings Of the 1993 IEEE International Frequency Control Symposium, IEEE, pp. 283-288 (June 15 2-4, 1993). Lam, W.K. et al., "Wideband sounding of 11.6 Ghz transhorizon channel," Electronics Letters, IEE, Vol. 30, No. AQ 15 9, pp. 738-739 (April 28, 1994). Larkin, K.G., "Efficient demodulator for bandpass sampled AM signals," Electronics Letters, IEE, Vol. 32, No. 2, AR <u>15</u> pp. 101-102 (January 18, 1996). **EXAMINER DATE CONSIDERED** 11 EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in

ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 U.S. PATENT DOCUMENTS **EXAMINER** INITIAL DOCUMENT DATE NAME CLASS SUB-**FILING DATE** NUMBER CLASS **AA16** 4,896,152 01/1990 340 853 Tiemann **AB16** 329 4,902,979 02/1990 Puckette, IV 343 **AC16** 4.908,579 03/1990 Tawfik et al. 328 167 AD16 4,910,752 03/1990 Yester, Jr. et al. 375 75 25 AE16 4,914,405 04/1990 Wells 331 AF16 4,920,510 04/1990 Senderowicz et al. 364 825 **AG16** 05/1990 4,922,452 Larsen et al. 365 45 AH16 06/1990 4,931,921 Anderson 363 163 **AI16** 4,944,025 07/1990 Gehring et al. 455 207 **FOREIGN PATENT DOCUMENTS** EXAMINER INITIAL **DOCUMENT NUMBER** COUNTRY DATE CLASS SUB-TRANSLATION CLASS AJ16 JP 58-133004 08/1983 JP H₀3D 1/00 No **AK16** JP 60-58705 04/1985 JP H₀3D 7/00 No AL16 JP 4-123614 04/1992 JP H₀3K 19/0175 No **AM16** JP 4-127601 04/1992 H03D 7/00 No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Lau, W.H. et al., "Analysis of the Time Variant Structure of Microwave Line-of-sight Multipath Phenomena," AN <u>16</u> IEEE Global Telecommunications Conference & Exhibition, IEEE, pp. 1707-1711 (November 28 - December 1, Lau, W.H. et al., "Improved Prony Algorithm to Identify Multipath Components," Electronics Letters, IEE, Vol. 23, AΩ <u>16</u> No. 20, pp. 1059-1060 (September 24, 1987). Lesage, P. and Audoin, C., "Effect of Dead-Time on the Estimation of the Two-Sample Variance," IEEE AP <u>16</u> Transactions on Instrumentation and Measurement, IEEE Instrumentation and Measurement Society, Vol. IM-28, No. 1, pp. 6-10 (March 1979). Liechti, C.A., "Performance of Dual-gate GaAs MESFET's as Gain-Controlled Low-Noise Amplifiers and High-AQ <u>16</u> Speed Modulators," IEEE Transactions on Microwave Theory and Techniques, IEEE Microwave Theory and Techniques Society, Vol. MTT-23, No. 6, pp. 461-469 (June 1975). Linnenbrink, T.E. et al., "A One Gigasample Per Second Transient Recorder," IEEE Transactions on Nuclear AR 16 Science, IEEE Nuclear and Plasma Sciences Society, Vol. NS-26, No. 4, pp. 4443-4449 (August 1979). **EXAMINER DATE CONSIDERED** 11 / **EXAMINER**: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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APPLICATION NO. ATTY. DOCKET NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT GROUP FILING DATE August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL DOCUMENT DATE NAME CLASS SUB-FILING DATE NUMBER CLASS **AA17** 4,955,079 09/1990 325 Connerney et al. 455 4,965,467 **AB17** 10/1990 Bilterijst 307 352 AC17 4,967,160 10/1990 Quievy et al. 328 16 AD17 4,970,703 11/1990 Hariharan et al. 367 138 **AE17** 4,982,353 01/1991 Jacob et al. 364 724.10 **AF17** 01/1991 4,984,077 Uchida 140 358 **AG17** 02/1991 4,995,055 Weinberger et al. 375 5 **AH17** 5,003,621 03/1991 Gailus 455 209 **AI17** 04/1991 5,005,169 Bronder et al. 370 76 FOREIGN PATENT DOCUMENTS EXAMINER INITIAL **DOCUMENT NUMBER** DATE COUNTRY **CLASS** SUB-**TRANSLATION CLASS** AJ17 07/1993 JP 5-175730 JP 1/00 H₀3D No **AK17** JP 5-175734 07/1993 JP H₀3D 3/00 No JP 7-154344 **AL17** 06/1995 JP H04B 14/06 No **AM17** JP 7-307620 11/1995 JP H₀3D 1/18 No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Liou, M.L., "A Tutorial on Computer-Aided Analysis of Switched-Capacitor Circuits," *Proceedings of the IEEE*, IEEE, Vol. 71, No. 8, pp. 987-1005 (August 1983). AN <u>17</u> Lo, P. et al., "Coherent Automatic Gain Control," IEE Colloquium on Phase Locked Techniques, IEE, pp. 2/1-2/6 AO <u>17</u> (March 26, 1980). Lo, P. et al., "Computation of Rain Induced Scintillations on Satellite Down-Links at Microwave Frequencies," AP <u>17</u> Third International Conference on Antennas and Propagation (ICAP 83), pp. 127-131 (April 12-15, 1983). Lo, P.S.L.O. et al., "Observations of Amplitude Scintillations on a Low-Elevation Earth-Space Path," *Electronics Letters*, IEE, Vol. 20, No. 7, pp. 307-308 (March 29, 1984). AQ <u>17</u> Madani, K. and Aithison, C.S., "A 20 Ghz Microwave Sampler," IEEE Transactions on Microwave Theory and Techniques, IEEE Microwave Theory and Techniques Society, Vol. 40, No. 10, pp. 1960-1963 (October 1992). AR 17 **EXAMINER** ĺ/ **DATE CONSIDERED** EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

APPLICATION NO. ATTY. DOCKET NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT GROUP FILING DATE August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** DOCUMENT CLASS SUB-FILING DATE INITIAL DATE NAME CLASS NUMBER **AA18** 04/1991 167 5,006,810 328 Popescu **AB18** 5,010,585 04/1991 Garcia 455 118 **AC18** 5,014,304 05/1991 Nicollini et al. 379 399 AD18 05/1991 Sutton 329 361 5.015.963 **AE18** 5,017,924 05/1991 Guiberteau et al. 342 195 AF18 455 325 5,020,149 05/1991 Hemmie AG18 5,020,154 05/1991 Zierhut 455 608 **AH18** Collier et al. 455 296 5,052,050 09/1991 11/1991 AI18 5,065,409 375 91 Hughes et al. FOREIGN PATENT DOCUMENTS EXAMINER ÎNITIAL DOCUMENT NUMBER DATE COUNTRY CLASS SUB-**TRANSLATION CLASS** JP 55-66057 7/10 AJ18 05/1980 JP **G06K** No G06K 7/10 **AK18** JP No JP 63-65587 03/1988 AL18 JP 63-153691 06/1988 JΡ G06K 17/00 No **AM18** 7/00 N/A EP 0 276 130 A2&A3 07/1988 EP H03D OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Marsland, R.A. et al., "130 Ghz GaAs monolithic integrated circuit sampling head," Appl. Phys. Lett., American AN <u>18</u> Institute of Physics, Vol. 55, No. 6, pp. 592-594 (August 7, 1989). Martin, K. and Sedra, A.S., "Switched-Capacitor Building Blocks for Adaptive Systems," *IEEE Transactions on Circuits and Systems*, IEEE Circuits and Systems Society, Vol. CAS-28, No. 6, pp. 576-584 (June 1981). AO <u>18</u> Marzano, F.S. and d'Auria, G., "Model-based Prediction of Amplitude Scintillation variance due to Clear-Air Tropospheric Turbulence on Earth-Satellite Microwave Links," *IEEE Transactions on Antennas and Propagation*, IEEE Antennas and Propagation Society, Vol. 46, No. 10, pp. 1506-1518 (October 1998). AP <u>18</u> Matricciani, E., "Prediction of fade durations due to rain in satellite communication systems," Radio Science, AQ 18 American Geophysical Union, Vol. 32, No. 3, pp. 935-941 (May-June 1997). McQueen, J.G., "The Monitoring of High-Speed Waveforms," Electronic Engineering, Morgan Brothers Limited, AR <u>18</u> Vol. XXIV, No. 296, pp. 436-441 (October 1952). **EXAMINER** DATE CONSIDERED 11 // EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

ATTY. DOCKET NO. APPLICATION NO. 09/632,856 1744.0630003 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** DOCUMENT INITIAL DATE CLASS SUB-**FILING DATE** NAME NUMBER CLASS **AA19** 5,083,050 01/1992 307 529 Vasile **AB19** 5,091,921 02/1992 Minami 375 88 **AC19** 5,095,533 03/1992 Loper et al. 455 245 AD19 5.095.536 03/1992 324 Loper 455 **AE19** 5,111,152 05/1992 Makino 329 300 **AF19** 5,113,094 05/1992 Grace et al. 307 529 **AG19** 5,113,129 05/1992 Hughes 323 316 **AH19** 5,122,765 06/1992 Pataut 332 105 **AI19** 5,124,592 06/1992 307 520 Hagino **FOREIGN PATENT DOCUMENTS** EXAMINER INITIAL **DOCUMENT NUMBER** DATE COUNTRY **CLASS** SUB-TRANSLATION CLASS PCT **AJ19** 01/1995 WO 95/01006 A1 1/66 **H03M** N/A **AK19** 03/1997 PCT WO 97/08839 A2&A3 **H04B** 1/04 N/A AL19 Yes Nο **AM19** Yes No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Merkelo, J. and Hall, R.D., "Broad-Band Thin-Film Signal Sampler," IEEE Journal of Solid-State Circuits, IEEE, ΑN <u>19</u> Vol. SC-7, No. 1, pp. 50-54 (February 1972). Merlo. U. et al., "Amplitude Scintillation Cycles in a Sirio Satellite-Earth Link," Electronics Letters, IEE, Vol. 21, AO <u>19</u> No. 23, pp. 1094-1096 (November 7, 1985). Morris, D., "Radio-holographic reflector measurement of the 30-m millimeter radio telescope at 22 Ghz with a AP <u> 19</u> cosmic signal source," Astronomy and Astrophysics, Springer-Verlag, Vol. 203, No. 2, pp. 399-406 (September (II) 1988). Moulsley, T.J. et al., "The efficient acquisition and processing of propagation statistics," Journal of the Institution of Electronic and Radio Engineers, IERE, Vol. 55, No. 3, pp. 97-103 (March 1985). AQ <u> 19</u> Ndzi, D. et al., "Wide-Band Statistical Characterization of an Over-the-Sea Experimental Transhorizon Link," IÈE AR <u>19</u> Colloquium on Radio Communications at Microwave and Millimetre Wave Frequencies, IEE, pp. 1/1-1/6 (December 16, 1996). **EXAMINER DATE CONSIDERED**

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in

ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL **DOCUMENT** DATE NAME CLASS **FILING DATE** SUB-NUMBER CLASS **AA20** 5,136,267 08/1992 Cabot 333 174 **AB20** 5,140,705 08/1992 Kosuga 455 318 AC20 5,150,124 09/1992 Moore et al. 342 68 AD20 5,151,661 09/1992 Caldwell et al. 328 14 AE20 5,159,710 10/1992 Cusdin 455 304 AF20 5,170,414 12/1992 Silvian 59 375 AG20 5,172,070 12/1992 Hiraiwa et al. 304 329 **AH20** 5,191,459 03/1993 Thompson et al. 359 133 **AI20** 5,204,642 04/1993 Ashgar et al. 331 135 **FOREIGN PATENT DOCUMENTS** EXAMINER INITIAL **DOCUMENT NUMBER** DATE COUNTRY **CLASS** SUB-TRANSLATION CLASS AJ20 No AK20 Yes No AL₂₀ Yes No **AM20** Yes No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Ndzi, D. et al., "Wideband Statistics of Signal Levels and Doppler Spread on an Over-The-Sea Transhorizon AN <u> 20</u> Link," IEE Colloquium on Propagation Characteristics and Related System Techniques for Beyond Line-of-Sight Radio, IEE, pp. 9/1-9/6 (November 24, 1997). "New zero IF chipset from Philips," Electronic Engineering, United News & Media, Vol. 67, No. 825, p. 10 AO 20 (September 1995). Ohara, H. et al., "First monolithic PCM filter cuts cost of telecomm systems," Electronic Design, Hayden AP 20 Publishing Company, Vol. 27, No. 8, pp. 130-135 (April 12, 1979). AQ <u> 20</u> Oppenheim, A.V. et al., Signals and Systems, Prentice-Hall, pp. 527-531 and 561-562 (1983). Ortgies, G., "Experimental Parameters Affecting Amplitude Scintillation Measurements on Satellite Links," AR <u>20</u> Electronics Letters, IEE, Vol. 21, No. 17, pp. 771-772 (August 15, 1985). **EXAMINER DATE CONSIDERED** 11

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in

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ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL **DOCUMENT** DATE NAME CLASS SUB-FILING DATE NUMBER CLASS AA22 5,251,218 10/1993 Stone et al. 370 120 **AB22** 5,251,232 10/1993 Nonami 375 5 AC22 5,260,970 11/1993 Henry et al. 375 10 AD22 11/1993 5,263,194 Ragan 455 316 AE22 5,263,196 11/1993 Jasper 455 324 AF22 5,267,023 11/1993 Kawasaki 23 358 AG22 Murphy et al. 5,278,826 01/1994 370 76 AH22 5,282,023 01/1994 Scarpa 358 36 AI22 5,287,516 02/1994 Schaub 88 375 **FOREIGN PATENT DOCUMENTS** EXAMINER INITIAL **DOCUMENT NUMBER** DATE COUNTRY **CLASS** SUB-TRANSLATION CLASS AJ22 No AK22 Yes No AL22 Yes No AM22 Yes No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Press Release, "Parkervision, Inc. Announces the Appointment of Michael Baker to the New Position of National AN <u>22</u> Sales Manager," Lippert/Heilshorn and Associates, 1 Page (April 7, 1994). Press Release, "Parkervision's Cameraman Well-Received By Distance Learning Market," Lippert/Heilshorn and AO 22 Associates, 2 Pages (April 8, 1994). Press Release, "Parkervision, Inc. Announces First Quarter Financial Results," Lippert/Heilshorn and AP <u>22</u> Associates, 2 Pages (April 26, 1994). Press Release, "Parkervision, Inc. Announces The Retirement of William H. Fletcher, Chief Financial Officer," AQ <u>22</u> Lippert/Heilshorn and Associates, 1 Page (May 11, 1994). Press Release, "Parkervision, Inc. Announces New Cameraman System II™ At Infocomm Trade Show," AR <u>22</u> Lippert/Heilshorn and Associates, 3 Pages (June 9, 1994). **EXAMINER DATE CONSIDERED** 11 //

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Page 23 of 56 ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL DOCUMENT DATE NAME CLASS FILING DATE SUB-NUMBER CLASS **AA23** 5,293,398 03/1994 Hamao et al. 375 1 **AB23** 5,303,417 Laws 04/1994 455 314 AC23 5,307,517 04/1994 Rich 455 306 AD23 5,315,583 05/1994 Murphy et al. 370 18 AE23 5,321,852 06/1994 Seong 455 182.1 AF23 5,325,204 06/1994 348 Scarpa 607 AG23 5,337,014 08/1994 Najle et al. 324 613 **AH23** 5,339,054 08/1994 Taguchi 332 100 Al23 5,339,459 08/1994 Schiltz et al. 333 455 **FOREIGN PATENT DOCUMENTS** EXAMINER INITIAL **DOCUMENT NUMBER** DATE COUNTRY **CLASS** SUB-TRANSLATION CLASS AJ23 Yes No AK23 Yes No AL23 Yes No **AM23** Yes No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Press Release, "Parkervision, Inc. Announces Appointments to its National Sales Force," Lippert/Heilshorn and AN <u>23</u> Associates, 2 Pages (June 17, 1994). Press Release, "Parkervision, Inc. Announces Second Quarter and Six Months Financial Results," AO <u>23</u> Lippert/Heilshorn and Associates, 3 Pages (August 9, 1994). Press Release, "Parkervision, Inc. Announces Third Quarter and Nine Months Financial Results," AP <u>23</u> Lippert/Heilshorn and Associates, 3 Pages (October 28, 1994). Press Release, "Parkervision, Inc. Announces First Significant Dealer Sale of Its Cameraman® System II," AQ <u>23</u> Lippert/Heilshorn and Associates, 2 Pages (November 7, 1994). Press Release, "Parkervision, Inc. Announces Fourth Quarter and Year End Results," Lippert/Heilshorn and AR <u>23</u> Associates, 2 Pages (March 1, 1995). **EXAMINER DATE CONSIDERED**

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ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** DOCUMENT INITIAL DATE NAME CLASS SUB-**FILING DATE** NUMBER CLASS AA24 5,355,114 10/1994 Sutterlin et al. 340 310 A **AB24** 5,361,408 11/1994 Watanabe et al. 455 324 AC24 5,369,800 11/1994 Takagi et al. 455 59 AD24 5,375,146 12/1994 Chalmers 375 103 AE24 5,379,040 01/1995 Mizomoto et al. 341 143 AF24 5,379,141 01/1995 125 Thompson et al. 359 AG24 5,388,063 02/1995 Takatori et al. 364 724.17 AH24 5,390,364 02/1995 Webster et al. 455 52.3 Al24 5,400,084 03/1995 348 624 Scarpa **FOREIGN PATENT DOCUMENTS EXAMINER** INITIA **DOCUMENT NUMBER** DATE COUNTRY **CLASS** SUB-**TRANSLATION CLASS** AJ24 Yes No AK24 Yes No AL24 Yes No AM24 Yes No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Press Release, "Parkervision, Inc. Announces Joint Product Developments With VTEL," Lippert/Heilshorn and AN 24 Associates, 2 Pages (March 21, 1995). Press Release, "Parkervision, Inc. Announces First Quarter Financial Results," Lippert/Heilshorn and AO <u>24</u> Associates, 3 Pages (April 28, 1995). Press Release, "Parkervision Wins Top 100 Product Districts' Choice Award," Parkervision Marketing and ΑP <u>24</u> Manufacturing Headquarters, 1 Page (June 29, 1995). Press Release, "Parkervision National Sales Manager Next President of USDLA," Parkervision Marketing and AQ <u>24</u> Manufacturing Headquarters, 1 Page (July 6, 1995). Press Release, "Parkervision Granted New Patent," Parkervision Marketing and Manufacturing Headquarters, 1 AR <u>24</u> Page (July 21, 1995). **EXAMINER** DATE CONSIDERED 11 / EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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		AC25	5,4	5,410,743		995	See	ly et al.	455					
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			5,4	16,803	05/1	995	Jane	er	375		324			
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	 	AG25	5,4	23,082	06/1	995	Cyg	an et al.	455	455				
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AP <u>25</u> Press Release, "Parkervision A Manufacturing Headquarters, 2								ces New Camera Control (October 25, 1995).	Technology	," Park	ervision Mar	keting and		
		AQ	<u>25</u>	Press Release Parkervision N	e, "Par //arketi	kervision, In ing and Man	c. Anr ufactu	c. Announces Completion of VTEL/Parkervision Joint Product Line," Ifacturing Headquarters, 2 Pages (October 30, 1995).						
	K	AR	<u>25</u>	Press Release Marketing and	e, "Pari Manu	kervision, Infacturing He	c. Ann	nounces Third Quarter and arters, 2 Pages (October)	d Nine Mont 30, 1995).	hs Fin	ancial Result	s," Parkervision		
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Page 28 of 56 ATTY. DOCKET NO. 1744.0630003 APPLICATION NO. 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP

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		AB28	5,4	83,193	01/1996		Kennedy et al.		33	29	300			
	/	AC28	5,4	83,549	01/1	996	Wei	nberg et al.	37	75	200			
		AD28	5,4	83,691	01/1	996	Heck et al. Whikehart et al.		45	55	234.2			
		AE28	5,49	90,173	02/1	996			37	75	316			
		AF28	5,49	93,581	02/1	02/1996		ng et al.	37	75	350			
		AG28	5,49	93,721	02/1	996	Reis		45	55	339			
	 	AH28	5,49	95,200	02/19	996	Kwa	n et al.	32	27	554			
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AO Press Release, "Parkervision, Inc. Announces Third Quarter and Nine Months Financial Results Marketing and Manufacturing Headquarters, 2 Pages (October 29, 1996).											ts," Parkervision			
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		AQ	28	Press Release, "CLI and ParkerVision Bring Enhanced Ease-of-Use to Videoconferencing," CLI/Parkervision, 2 Pages (January 20, 1997).										
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ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE **GROUP** August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL DOCUMENT DATE NAME **CLASS** SUB-**FILING DATE** NUMBER **CLASS** AA29 5,495,500 02/1996 Jovanovich et al. 375 206 **AB29** 5,499,267 03/1996 Ohe et al. 375 206 AC29 5,500,758 03/1996 Thompson et al. 359 189 AD29 5,517,688 05/1996 Fajen et al. 455 333 AE29 5,519,890 05/1996 Pinckley 455 307 AF29 5,523,719 06/1996 Longo et al. 327 557 **AG29** 5,523,726 06/1996 Kroeger et al. 332 103 **AH29** 5,523,760 06/1996 **McEwan** 342 89 A129 5,539,770 07/1996 375 Ishigaki 206 **FOREIGN PATENT DOCUMENTS** EXAMINER INITIAL **DOCUMENT NUMBER** DATE COUNTRY **CLASS** SUB-TRANSLATION CLASS AJ29 Yes No AK29 Yes No AL29 Yes No **AM29** Yes No OTHER (including Author, Title, Date, Pertinent Pages, etc.) Press Release, "Parkervision, Inc. Announces First Quarter Financial Results," Parkervision Marketing and AN <u> 29</u> Manufacturing Headquarters, 3 Pages (April 29, 1997). Press Release, "NEC and Parkervision Make Distance Learning Closer," NEC America, 2 Pages (June 18, AO <u> 29</u> 1997). Press Release, "Parkervision Supplies JPL with Robotic Cameras, Cameraman Shot Director for Mars Mission," ΑP 29 Parkervision Marketing and Manufacturing Headquarters, 2 pages (July 8, 1997). Press Release, "ParkerVision and IBM Join Forces to Create Wireless Computer Peripherals," Parkervision AQ 29 Marketing and Manufacturing Headquarters, 2 Pages (July 23, 1997). Press Release, "ParkerVision, Inc. Announces Second Quarter and Six Months Financial Results," Parkervision AR <u>29</u> Marketing and Manufacturing Headquarters, 3 Pages (July 31, 1997). **EXAMINER** DATE CONSIDERED // EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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APPLICATION NO. ATTY. DOCKET NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE **GROUP** August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL DOCUMENT DATE NAME **CLASS** SUB-**FILING DATE** NUMBER **CLASS AA30** 5,555,453 09/1996 Kajimoto et al. 455 266 **AB30** 5,557,641 09/1996 375 Weinberg 295 AC30 5,557,642 09/1996 Williams 375 316 AD30 5.579.341 11/1996 Smith et al. 267 375 AE30 5,579,347 11/1996 Lindquist et al. 375 346 AF30 5,584,068 12/1996 Mohindra 455 324 AG30 5,592,131 01/1997 Labreche et al. 332 103 **AH30** 5,602,847 02/1997 Pagano et al. 370 484 Al30 219 5,602,868 02/1997 Wilson 375 **FOREIGN PATENT DOCUMENTS** EXAMINER INITIA DOCUMENT NUMBER DATE COUNTRY **CLASS** SUB-TRANSLATION **CLASS AJ30** Yes No **AK30** Yes No AL30 Yes No **AM30** Yes No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Press Release, "Parkervision, Inc. Announces Private Placement of 990,000 Shares," Parkervision Marketing AN <u>30</u> and Manufacturing Headquarters, 2 Pages (September 8, 1997). Press Release, "Wal-Mart Chooses Parkervision for Broadcast Production," Parkervision Marketing and AO <u>30</u> Manufacturing Headquarters, 2 Pages (October 24, 1997). Press Release, "Parkervision, Inc. Announces Third Quarter Financial Results," Parkervision Marketing and AP 30 Manufacturing Headquarters, 3 Pages (October 30, 1997). Press Release, "ParkerVision Announces Breakthrough in Wireless Radio Frequency Technology," Parkervision AQ 30 Marketing and Manufacturing Headquarters, 3 Pages (December 10, 1997). Press Release, "Parkervision, Inc. Announces the Appointment of Joseph F. Skovron to the Position of Vice President, Licensing - Wireless Technologies," Parkervision Marketing and Manufacturing Headquarters, 2 AR <u>30</u> Pages (January 9, 1998). **EXAMINER DATE CONSIDERED** 11 / EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL DOCUMENT DATE NAME CLASS SUB-**FILING DATE** NUMBER CLASS **AA31** 5.604,732 02/1997 Kim et al. 370 342 **AB31** 5,608,531 03/1997 Honda et al. 386 1 AC31 03/1997 269 5,610,946 Tanaka et al. 375 AD31 RE 35,494 04/1997 Nicollini 327 554 5,617,451 04/1997 Mimura et al. 375 340 AE31 AF31 5,619,538 04/1997 Sempel et al. 375 328 **AG31** 5,621,455 04/1997 Rogers et al. 348 6 **AH31** 5,630,227 05/1997 Bella et al. 455 324 AI31 5,640,415 06/1997 **Pandula** 375 202 **FOREIGN PATENT DOCUMENTS** EXAMINER INITIAL DATE **DOCUMENT NUMBER** COUNTRY **CLASS** SUB-TRANSLATION CLASS AJ31 Yes No AK31 Yes No AL31 Yes No **AM31** Yes No OTHER (including Author, Title, Date, Pertinent Pages, etc.) Press Release, "Parkervision Announces Existing Agreement with IBM Terminates— Company Continues with Strategic Focus Announced in December," Parkervision Marketing and Manufacturing Headquarters, 2 Pages AN <u>31</u> (January 27, 1998). Press Release, "Laboratory Tests Verify Parkervision Wireless Technology," Parkervision Marketing and AO <u>31</u> Manufacturing Headquarters, 2 Pages (March 3, 1998). Press Release, "Parkervision, Inc. Announces Fourth Quarter and Year End Financial Results," Parkervision AP <u>31</u> Marketing and Manufacturing Headquarters, 3 Pages (March 5, 1998). Press Release, "Parkervision Awarded Editors' Pick of Show for NAB 98," Parkervision Marketing and AQ <u>31</u> Manufacturing Headquarters, 2 Pages (April 15, 1998). Press Release, "Parkervision Announces First Quarter Financial Results," Parkervision Marketing and AR <u>31</u> Manufacturing Headquarters, 3 Pages (May 4, 1998). **EXAMINER** DATE CONSIDERED EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL **DOCUMENT** DATE NAME CLASS **FILING DATE** SUB-NUMBER CLASS **AA32** 5,640,424 06/1997 Banavong et al. 375 316 AB32 5,640,428 06/1997 Abe et al. 375 334 AC32 5,640,698 06/1997 Shen et al. 455 323 AD32 5,648,985 07/1997 Bierede et al. 375 219 AE32 5,650,785 07/1997 Rodal 342 357 AF32 5,661,424 08/1997 Tang 327 105 AG32 5,663,878 09/1997 Walker 363 159 **AH32** 5,663,986 09/1997 Striffler 260 375 AI32 Smith et al. 5,668,836 09/1997 375 316 **FOREIGN PATENT DOCUMENTS** EXAMINER INITIA **DOCUMENT NUMBER** DATE COUNTRY CLASS SUB-TRANSLATION CLASS AJ32 Yes No AK32 Yes No AL32 Yes No **AM32** Yes No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Press Release, "Parkervision 'DIRECT2DATA' Introduced in Response to Market Demand," Parkervision AN <u>32</u> Marketing and Manufacturing Headquarters, 3 Pages (July 9, 1998). Press Release, "Parkervision Expands Senior Management Team," Parkervision Marketing and Manufacturing AO <u>32</u> Headquarters, 2 Pages (July 29, 1998). Press Release, "Parkervision Announces Second Quarter and Six Month Financial Results," Parkervision ΑP <u>32</u> Marketing and Manufacturing Headquarters, 4 Pages (July 30, 1998). Press Release, "Parkervision Announces Third Quarter and Nine Month Financial Results," Parkervision AQ <u>32</u> Marketing and Manufacturing Headquarters, 3 Pages (October 30, 1998). Press Release, "Questar Infocomm, Inc. Invests \$5 Million in Parkervision Common Stock," Parkervision AR <u>32</u> Marketing and Manufacturing Headquarters, 3 Pages (December 2, 1998). **EXAMINER** DATE CONSIDERED // EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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		AO	Reeves, R.J.D., "The Recording and Collocation of Waveforms (Part 2)," <i>Electronic Engineering</i> , Morgan Brothers Limited, Vol. 31, No. 374, pp. 204-212 (April 1959).											
		AP	<u>34</u>	Rein, H.M. ar Transistors,"	Rein, H.M. and Zahn, M., "Subnanosecond-Pulse Generator with Variable Pulsewidth Using Avalanche Transistors," <i>Electronics Letters</i> , IEE, Vol. 11, No. 1, pp. 21-23 (January 9, 1975).									
		AQ	<u>34</u>	Riad, S.M. ar IEEE MTT-S	Riad, S.M. and Nahman, N.S., "Modeling of the Feed-through Wideband (DC to 12.4 Ghz) Sampling-Head," IEEE MTT-S International Microwave Symposium Digest, IEEE, pp. 267-269 (June 27-29, 1978).									
	12	AR	<u>34</u>	Rizzoli, V. et al., "Computer-Aided Noise Analysis of MESFET and HEMT Mixers," IEEE Transactions on Microwave Theory and Techniques, IEEE, Vol. 37, No. 9, pp. 1401-1410 (September 1989).										
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ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** DATE FILING DATE INITIAL DOCUMENT NAME CLASS SUB-NUMBER CLASS 219 **AA36** 5,793,801 08/1998 Fertner 375 **AB36** 5,793,818 08/1998 Claydon et al. 375 326 AC36 Zuckerman 455 208 5,802,463 09/1998 AD36 5,809,060 09/1998 Cafarella et al. 375 206 AE36 5,818,582 10/1998 Fernandez et al. 356 318 AF36 5,825,254 10/1998 Lee 331 25 AG36 5,834,985 11/1998 Sundegård 332 100 **AH36** 5,864,754 01/1999 Hotto 455 280 AI36 03/1999 5,881,375 **Bonds** 455 118 **FOREIGN PATENT DOCUMENTS** EXAMINER DOCUMENT NUMBER INITIAL DATE COUNTRY **CLASS** SUB-TRANSLATION CLASS AJ36 Yes No **AK36** Yes No AL36 Yes No **AM36** Yes No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) "Sampling Loops Lock Sources to 23 Ghz," Microwaves & RF, Penton Publishing, p. 212 (September 1990). AN <u>36</u> Sasikumar, M. et al., "Active Compensation in the Switched-Capacitor Biquad," Proceedings of the IEEE, IEEE, AO <u>36</u> Vol. 71, No. 8, pp. 1008-1009 (August 1983). Saul, P.H., "A GaAs MESFET Sample and Hold Switch," Fifth European Solid State Circuits Conference-ESSCIRC 79, IEE, pp. 5-7 (1979). AP <u>36</u> Shen, D.H. et al., "A 900-MHZ RF Front-End with Integrated Discrete-Time Filtering," IEEE Journal of Solid-State Circuits, IEEE Solid-State Circuits Council, Vol. 31, No. 12, pp. 1945-1954 (December 1996). AQ <u>36</u> Shen, X.D. and Vilar, E., "Anomalous transhorizon propagation and meteorological processes of a multilink AR <u>36</u> path," Radio Science, American Geophysical Union, Vol. 30, No. 5, pp. 1467-1479 (September-October 1995). **EXAMINER DATE CONSIDERED** " 11 EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in

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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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Page 39 of 56 ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL **DOCUMENT** DATE NAME **CLASS** SUB-FILING DATE NUMBER CLASS **AA39** 5,903,854 05/1999 Abe et al. 455 575 **AB39** 5,905,449 05/1999 Tsubouchi et al. 340 925.69 AC39 5,907,149 05/1999 Marckini 235 487 AD39 5,907,197 05/1999 Faulk 307 119 AE39 5,911,116 06/1999 Nosswitz 455 83 AF39 5,911,123 Shaffer et al. 06/1999 455 554 AG39 5,914,622 06/1999 Inoue 327 172 **AH39** 5,920,199 07/1999 Sauer 324 678 **AI39** 5,943,370 08/1999 Smith 375 334 **FOREIGN PATENT DOCUMENTS** EXAMINER INITIAL DOCUMENT NUMBER DATE COUNTRY CLASS SUB-TRANSLATION **CLASS AJ39** Yes Nο **AK39** Yes No AL39 Yes No **AM39** Yes No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Takano, T., "NOVEL GaAs Pet Phase Detector Operable To Ka Band," IEEE MT-S Digest, IEEE, pp. 381-383 AN <u>39</u> (1984).Tan, M.A., "Biquadratic Transconductance Switched-Capacitor Filters," IEEE Transactions on Circuits and AO <u>39</u> Systems- I: Fundamental Theory and Applications, IEEE Circuits and Systems Society, Vol. 40, No. 4, pp. 272-275 (April 1993). Tanaka, K. et al., "Single Chip Multisystem AM Stereo Decoder IC," IEEE Transactions on Consumer Electronics, IEEE Consumer Electronics Society, Vol. CE-32, No. 3, pp. 482-496 (August 1986). AP <u>39</u> Tawfik, A.N., "Amplitude, Duration and Predictability of Long Hop Trans-Horizon X-band Signals Over the Sea," *Electronics Letters*, IEE, Vol. 28, No. 6, pp. 571-572 (March 12, 1992). AQ <u>39</u> Tawfik, A.N. and Vilar, E., "Correlation of Transhorizon Signal Level Strength with Localized Surface AR <u> 39</u> Meteorological Parameters," Eighth International Conference on Antennas and Propagation, Electronics Division of the IEE, pp. 335-339 (March 30- April 2, 1993).

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER DOCUMENT CLASS** FILING DATE INITIAL DATE SUB-NAME NUMBER CLASS 325 42 **AA40** 4,017,798 04/1977 Gordy et al. AB40 325 323 4,032,847 06/1977 Unkauf AC40 110 02/1981 Caples et al. 329 4,253,067 Hacke et al. AD40 07/1983 358 4,393,395 23 AE40 4,816,704 03/1989 Fiori, Jr. 307 519 AF40 4,841,265 06/1989 Watanabe et al. 333 194 **AG40** 4,943,974 07/1990 Motamedi 375 AH40 364 05/1992 841 5,115,409 Stepp AI40 10/1994 375 14 5,353,306 Yamamoto **FOREIGN PATENT DOCUMENTS** EXAMINER DOCUMENT NUMBER INITIAL DATE COUNTRY **CLASS** SUB-TRANSLATION CLASS AJ40 Yes No **AK40** Yes No AL40 Yes No **AM40** Yes No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Tawfik, A.N. and Vilar, E., "Dynamic Structure of a Transhorizon Signal at X-band Over a Sea Path," Sixth AN 40 International Conference on Antennas and Propagation (ICAP 89) Part 2: Propagation, IEE, pp. 446-450 (April 4-7, 1989). Tawfik, A.N. and Vilar, E., "Statistics of Duration and Intensity of Path Loss in a Microwave Transhorizon Sea-AO 40 Path," Electronics Letters, IEE, Vol. 26, No. 7, pp. 474-476 (March 29, 1990). Tawfik, A.N. and Vilar, E., "X-Band Transhorizon Measurements of CW Transmissions Over the Sea- Part 1: AP Path Loss, Duration of Events, and Their Modeling," IEEE Transactions on Antennas and Propagation, IEEE <u>40</u> Antennas and Propagation Society, Vol. 41, No. 11, pp. 1491-1500 (November 1993). Temes, G.C. and Tsividis, T., "The Special Section on Switched-Capacitor Circuits," Proceedings of the IEEE, AQ 40 IEEE, Vol. 71, No. 8, pp. 915-916 (August 1983). AR <u>40</u> Thomas, G.B., Calculus and Analytic Geometry, Third Edition, Addison-Wesley Publishing, pp. 119-133 (1960). **EXAMINER** DATE CONSIDERED / 11 EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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ATTY. DOCKET NO. APPLICATION NO. 09/632,856 1744.0630003 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT GROUP FILING DATE August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** DATE FILING DATE DOCUMENT CLASS SUB-INITIAL NAME NUMBER CLASS 06/1998 193 **AA42** 5,770,985 Ushiroku et al. 333 AB42 07/1998 375 206 5,778,022 Walley 09/1998 370 342 AC42 5,812,546 Zhou et al. AD42 10/1998 Miya et al. 375 206 5,818,869 AE42 5,844,449 12/1998 Abeno et al. 332 105 AF42 02/1999 Cranford, Jr. et al. 323 315 5,872,446 **AG42** 06/1999 Cox et al. 370 508 5,909,447 375 **AH42** 08/1999 350 5,933,467 Sehier et al. 332 09/1999 128 Al42 5,952,895 McCune, Jr. et al. **FOREIGN PATENT DOCUMENTS** EXAMINER INITIAL **DOCUMENT NUMBER** COUNTRY **CLASS** SUB-DATE TRANSLATION CLASS AJ42 No AK42 Yes No AL42 Yes No AM42 Yes No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Valdmanis, J.A. et al., "Picosecond and Subpicosend Optoelectronics for Measurements of Future High Speed AN <u>42</u> Electronic Devices," IEDM Technical Digest, IEEE, pp. 597-600 (December 5-7, 1983). van de Kamp, M.M.J.L., "Asymmetric signal level distribution due to tropospheric scintillation," Electronics AO 42 Letters, IEE, Vol. 34, No. 11, pp. 1145-1146 (May 28, 1998). Vasseur, H. and Vanhoenacker, D., "Characterization of tropospheric turbulent layers from radiosonde data," ΑP <u>42</u> Electronics Letters, IEE, Vol. 34, No. 4, pp. 318-319 (February 19, 1998). Verdone, R., "Outage Probability Analysis for Short-Range Communication Systems at 60 Ghz in ATT Urban AQ Environments," IEEE Transactions on Vehicular Technology, IEEE Vehicular Technology Society, Vol. 46, No. 4, 42 pp. 1027-1039 (November 1997). Vierira-Ribeiro, S.A., Single-IF DECT Receiver Architecture using a Quadrature Sub-Sampling Band-Pass AR <u>42</u> Sigma-Delta Modulator, Thesis for Degree of Master's of Engineering, Carleton University, UMI Dissertation Services, pp. 1-180 (April 1995). **EXAMINER** DATE CONSIDERED / **EXAMINER**: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL DOCUMENT DATE NAME CLASS FILING DATE SUB-NUMBER **CLASS AA51 AB51** AC51 AD51 AE51 AF51 AG51 AH51 AI51 FOREIGN PATENT DOCUMENTS **EXAMINER** INITIAL **DOCUMENT NUMBER** DATE COUNTRY **CLASS** SUB-TRANSLATION **CLASS** AJ51 Yes No **AK51** Yes No **AL51** Yes No AM51 Yes No OTHER (including Author, Title, Date, Pertinent Pages, etc.) ΑN <u>51</u> Translation of EP Patent No. 0 732 803 A1, 9 pages. Fest, Jean-Pierre, "The A/D Converter Revolutionizes the Radio Receiver," Electronique, JMJ (Publisher), No. AO <u>51</u> 54, 3 pages (December 1995). (Translation of Doc. AQ50). AP Translation of German Patent No. DE 197 35 798 C1, 8 pages. <u>51</u> Miki, S. and Nagahama, R., Modulation System II, Common Edition 7, Kyoritsu Publishing Co., Ltd., pp. 146-154 AQ <u>51</u> (April 30, 1956). Miki, S. and Nagahama, R., Modulation System II, Common Edition 7, Kyoritsu Publishing Co., Ltd., pp. 146-149 <u>51</u> (April 30, 1956). (Partial Translation of Doc. AQ51). **EXAMINER** DATE CONSIDERED 11 EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 FORM PTO-1449 APPLICANT Sorrells et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER** INITIAL DOCUMENT DATE NAME CLASS SUB-FILING DATE NUMBER CLASS **AA52 AB52** AC52 AD52 AE52 AF52 AG52 AH52 **AI52 FOREIGN PATENT DOCUMENTS EXAMINER** INITIAL **DOCUMENT NUMBER** DATE COUNTRY CLASS **TRANSLATION** SUB-CLASS AJ52 Yes No AK52 Yes No AL52 Yes No **AM52** Yes No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Rabiner, L.R. and Gold, B., Theory And Application Of Digital Signal Processing, Prentice-Hall, Inc., pp. xiii-xii AN 52 and 40-46 (1975). English-language Abstract of Japanese Patent Publication No. 08-032556, from http://www1.ipdl.jpo.go.jp, 2 Pages (February 2, 1996 - Date of publication of application). AO <u>52</u> English-language Abstract of Japanese Patent Publication No. 08-139524, from http://www1.ipdl.jpo.go.jp, 2 ΑP <u>52</u> Pages (May 31, 1996 - Date of publication of application). English-language Abstract of Japanese Patent Publication No. 59-144249, from http://www1.ipdl.jpo.go.jp, 2 AQ <u>52</u> Pages (August 18, 1984 - Date of publication of application). English-language Abstract of Japanese Patent Publication No. 63-054002, from http://www1.ipdl.jpo.go.jp, 2 AR 52 Pages (March 8, 1988 - Date of publication of application). **EXAMINER** DATE CONSIDERED // **EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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-		АР	<u>54</u>	English-langua Pages (April 2	age At :8, 199	ostract of Jap 32 - Date of p	panese oublice	e Patent Publication No. ation of application).	04-127601,	, from hi	ttp://www1.ip	dl.jpo.go.jp, 2
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	AO	<u>55</u>	Pages (Noven	age Al	bstract of Jap 11, 1995 - Dat	e of p	e Patent Publication No. publication of application)	07-307620, 1 	rom h	ttp://www1.ip	dl.jpo.go.jp, 2
	АР	<u>55</u>	Oppenheim, A 136-165 (1975	.V. an	nd Schafer, R	.W., <i>i</i>	Digital Signal Processing	, Prentice-Ha	ili, pp.	vii-x, 6-35, 4	5-78, 87-121 and
	ΑQ	<u>55</u>	English-langua Page (May 19	age At , 1980	ostract of Jap - Date of put	anes blicati	e Patent Publication No. ion of application).	55-066057, f	rom <i>ht</i>	tp://www1.ipo	dl.jpo.go.jp, 1
(AR	<u>55</u>	English-langua Page (March 2	ige At 24, 198	ostract of Jap 88 - Date of p	anes	e Patent Publication No. (ation of application).	83-065587, fi	rom ht	tp://www1.ipc	dl.jpo.go.jp, 1
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	AP	<u>56</u>					S Transmitter for Dual-Band A 128-131 (1998).	pplicat	ions," (Symposium c	on VLSI Circuits
	AQ	<u>56</u>	Ritter, G.M., Exhibitions a	'SDA, nd Put	A New Soluti	ion fo 729-73	r Transceivers," <i>16th European</i> 33 (September 8, 1986).	Micro	wave C	Conference, N	Microwave
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	AL20	EP 0	087 336 A1	,	08/1983		EP	НО	3D	7/12	No
10	AM20	EP 0	087 336 B1		07/1986		EP	НО	3D	7/12	No
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	АО	<u>57</u>	Patel, M. et a Jitter," VTC 2	/., "Ba 002, II	ndpass Samp EEE, pp. 190	oling f 1-190	for Software Radio Receivers 55 (2002).	and ti	ne Effect	of Oversam	oling on Aperture
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	AB51	5,937,013	08/1	999	Lam	et al.				01/03/1997
	AC51	6,014,551	01/2			ola et al.				07/16/1997
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	AK21	FR 2 669 787 A	.1	05/1992		FR	но	3D	7/14	No
	AL21	GB 2 324 919 A	\	11/1998		GB	НО	3D	7/18	N/A
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INFORMATION SCLOSURE STATEMENT

APPLICATION NO. 09/632,856 ATTY. DOCKET NO. 1744.0630003 APPLICANTS Sorrells et al. GROUP 2634 FILING DATE

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. . Page 2 of 6 ATTY. DOCKET NO APPLICATION NO. 1744.0630003 09/632,856 PORM PTO-1449 **APPLICANTS** Sorrells et al. SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP August 4, 2000 2634 **U.S. PATENT DOCUMENTS EXAMINER DOCUMENT** INITIAL DATE NAME CLASS FILING DATE SUB-NUMBER CLASS **AA52** 6,560,301 B1 05/2003 Cook et al. AB52 6,098,046 08/2000 Cooper et al. AC52 5,564,097 10/1996 Swanke AD52 5,898,912 04/1999 Heck et al. AE52 4,660,164 04/1987 Leibowitz AF52 6,580,902 B1 06/2003 Sorrells et al. AG52 4,857,928 08/1989 Gailus et al. AH52 5,389,839 02/1995 Heck AI52 5,471,665 11/1995 Pace et al. **FOREIGN PATENT DOCUMENTS EXAMINER** INITIAL **DOCUMENT NUMBER** DATE COUNTRY CLASS SUB-TRANSLATION **CLASS** AJ23 WO 00/31659 A1 06/2000 PCT N/A AK23 JP 9-36664 02/1997 JP No AL AM OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Dines, J.A.B., "Smart Pixel Optoelectronic Receiver Based on a Charge Sensitive Amplifier Design," IEEE AN <u>58</u> Journal of Selected Topics in Quantum Electronics, IEEE, Vol. 2, No. 1, pp. 117-120 (April 1996). Simoni, A. et al., "A Digital Camera for Machine Vision," 20th International Conference on Industrial Electronics, AO <u>58</u> Control and Instrumentation, IEEE, pp. 879-883 (September 1994). Stewart, R.W. and Pfann, E., "Oversampling and sigma-delta strategies for data conversion," Electronics & ΑP <u>58</u> Communication Engineering Journal, IEEE, pp. 37-47 (February 1998). Rudell, J.C. et al., "A 1.9-Ghz Wide-Band IF Double Conversion CMOS Receiver for Cordless Telephone AQ 58 Applications," IEEE Journal of Solid-State Circuits, IEEE, Vol. 32, No. 12, pp. 2071-2088 (December 1997).

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English-language Abstract of Japanese Patent Publication No. 09-036664, from http://www1.ipdi.jpo.go.jp, 2

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	AC54	5,790,587	08/19	98	Smitt	et al.				
	AD54	4,740,675	04/18	88	Brosi	nan et al.				
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Page 2 of 6 ATTY. DOCKET NO. APPLICATION NO. 09/632,856 1744.0630003 **FORM PTO-1449 INVENTORS** SORRELLS et al. THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT **ART UNIT** FILING DATE August 4, 2000 2634 **U.S. PATENT DOCUMENTS** EXAMINER INITIAL DOCUMENT NUMBER CLASS SUB-CLASS FILING DATE DATE NAME **AA57** 5.999.561 12/1999 Naden et al. **AB57** 6,686,879 B2 02/2004 Shattil AC57 6,704,549 B1 03/2004 Sorrells et al. AD57 6,704,558 B1 03/2004 Sorrells et al. AE57 5,490,176 02/1996 Peltier AF57 5,970,053 10/1999 Schick et al. **AG57** 6.078.630 06/2000 Prasanna **AH57** 6,600,911 B1 07/2003 Morishige et al. 5,179,731 01/1993 Tränkle et al. **AI57 FOREIGN PATENT DOCUMENTS** EXAMINER INITIAL DOCUMENT NUMBER COUNTRY CLASS SUB-CLASS **TRANSLATION** DATE Yes AJ No Yes AK No Yes AL No Yes AM No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) ΑN AO AP AQ AR DATE CONSIDERED EXAMINER EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance

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Page 3 of 6 ATTY. DOCKET NO. APPLICATION NO. 1744.0630003 09/632,856 **FORM PTO-1449** INVENTORS SORRELLS et al. THIRD SUPPLEMENTAL **FILING DATE ART UNIT** INFORMATION DISCLOSURE STATEMENT August 4, 2000 2634 **U.S. PATENT DOCUMENTS** EXAMINER INITIAL DOCUMENT NUMBER DATE NAME CLASS SUB-CLASS FILING DATE 12/1996 **AA58** 5,589,793 Kassapian 04/1985 **AB58** 4,510,467 Chang et al. 09/1988 AC58 4,772,853 Hart AD58 4,972,436 11/1990 Halim et al. AE58 5,012,245 04/1991 Scott et al. 06/1995 **AF58** 5,422,909 Love et al. AG58 5,440,311 08/1995 Gallagher et al. 07/1999 AH58 5,926,513 Suominen et al. **AI58** 5,995,030 11/1999 Cabler **FOREIGN PATENT DOCUMENTS** EXAMINER INITIAL CLASS SUB-CLASS **TRANSLATION** DOCUMENT NUMBER COUNTRY DATE Yes ΑJ No Yes ΑK No Yes AL No Yes ΑM No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) ΑN AO ΑP AQ AR **EXAMINER** DATE CONSIDERED 11/07/01 EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance

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	AC60	6,1	51,354	11/2000	Abbey		<u> </u>	
	AD60	6,1	69,733 B1	01/2001	Lee		ļ	
	AE60	6,3	63,262 B1	03/2002	McNicol		<u> </u>	
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	AC61	6,160,280	12/2000	Bonn et al.			
	AD61	5,481,570	01/1996	Winters	·		
	AE61	5,745,846	04/1998	Myer et al.			<u> </u>
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	AB62	4,873,492	10/1989	Myer			
	AC62	5,697,074	12/1997	Makikallio et al.			
	AD62	5,784,689	07/1998	Kobayashi			
	AE62	6,335,656 B1	01/2002	Goldfarb et al.	_		
	AF62	6,690,232 B2	02/2004	Ueno et al.			
	AG62	5,636,140	06/1997	Lee et al.			
	AH62	6,366,622 B1	04/2002	Brown et al.			
-1/	AI62	6,600,795 B1	07/2003	Ohta <i>et al</i> .		:	
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K	AA63	4,250,458	02/1981	Richmond et al.			
	AB63	5,760,629	06/1998	Urabe et al.			
	AC63	6,084,465	07/2000	Dasgupta			
	AD63	6,204,789 B1	03/2001	Nagata			
	AE63	6,064,054	05/2000	Waczynski <i>et al.</i>			
	AF63	5,218,562	06/1993	Basehore et al.			
	AG63	5,239,496	08/1993	Vancraeynest			
,	AH63	5,896,304	04/1999	Tiemann et al.			
160	Al63	6,005,903	12/1999	Mendelovicz			
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